

NETWORK RHINOS CCNA INTERVIEW QUESTIONS.

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Following are the mostly asked interview question someone will ask after completing CCNA.

Hubs

Hubs operate at Layer 1 of OSI model.

Hubs cannot process layer-2 or layer-3 traffic. Layer-2 deals with hardware addresses and layer-3 deals with logical (IP) addresses. So, hubs cannot process information based on MAC or IP addresses.

Hubs cannot even process data based on whether it is a unicast, broadcast or multi-cast data.

Hub transfers data to every port excluding the port from where data was generated.

Hubs work only in half duplex mode.

Collisions can happen.

In case of a collision, a hub rejects data from all the devices and signals them to send data again. Usually devices follow a random timer after which data is sent again to hub.

Maximum 2-12 number of ports can be found on Hubs.

Switches

Switches are network devices that operate on layer-2 of OSI model. Some switches operate at higher level too.

Switches are also known as intelligent hubs.

Switches operate on hardware addresses (MAC) to transfer data across devices connected to them.

It performs broadcast at first, after that Unicast.

Major difference between Bridge and Switch being that a switch forwards data at wire speed as it uses special hardware circuits known as ASICs.

Switches support full duplex data transfer communication.

As layer 2 protocols headers have no information about network of data packet so switches cannot forward data based on networks and that is the reason switches cannot be used with large networks that are divided in sub networks.

Switches can avoid loops through the use of spanning tree protocol.

Switches can have 24-48 ports and can be practically unlimited ports because they don't divide speed unlike Hubs.

Routers

Routers are the network devices that operate at Layer-3 of OSI model.

As layer-3 protocols have access to logical address (IP addresses) so routers have the capability to forward data across networks.

Routers are far more feature rich as compared to switches.

Routers maintain routing table for data forwarding.

Routers have lesser port densities as compared to switches.

Routers are usually used as a forwarding network elements in Wide Area Networks.

What are the different layers of OSI model?

Ans: Basically, there are 7 layers of OSI model. Each layer has its own functionality in the OSI model.

They are:

- Layer 1 – Physical
- Layer 2 – Data Link Layer
- Layer 3 – Network
- Layer 4 – Transport

- Layer 5 – Session
- Layer 6 – Presentation
- Layer 7- Application

What is the difference between LAN, MAN, and WAN?

Ans: LAN

It is a local area network where computers and network devices are connected with each other, usually within the same area or building. Connections in LAN must be of high speed.

Example: Ethernet

MAN

It is metropolitan area network where the networks are connected widely within several buildings in the same city.

Example: The IUB Network

WAN

It is a wide area network where the networks are limited to one enterprise or organization and can be accessed by the public. It connects several LANs. Connection in WAN is high speed and expensive too.

Example: Internet.

What are the different class and ranges of IP address?

Ans: There are 5 different classes of IP address:

Class	Range
A	1-126
B	127-191
C	192-223
D	224-239
E	240-254

What is PING used for?

Ans: PING is packet Internet groper. It is used to test the reachability of a host on an Internet protocol (IP) network. When any data is sent via the network through the IP addresses, then it will PING the receiver to receive the data from the sender.

Can IP address be assigned to Layer 2?

Ans: No, IP addresses cannot assign to Layer2. Only mac addresses are used at this layer.

What is Private IP and Public IP?

Ans: Private IP

It is used within the local LAN.

Public IP

It is used across the Internet.

What is OSPF? Describe it.

Ans: OSPF stands for Open Shortest Path First. It uses Dijkstra algorithm and is a link state routing protocol which is used to connect to a large number of networks without having any limitation on the number of hops.

Explain the difference between Collision Domain and Broadcast Domain.

Ans: Broadcast Domain

In the Broadcast Domain, all the juncture can reach each other by broadcast at the data link layer and every device is ready to receive their respective data. It can bind to the same LAN segments or the other LAN segment.

Broadcast Domain uses local network for broadcasting the data packets to the receiver. While broadcasting, massive data are broadcasted, hence the speed of receiving the data is less and it also takes more time to receive the data of their address.

Collision Domain

In the Collision Domain, data collision occurs more due to sending of more frames simultaneously.

If more than two frames are sent simultaneously then the data will collide with each other in between and the information gets lost due to an occurrence of a collision and the devices will not accept the data and due to this, the communication between the sender and receiver side will collide.

Hence, the sender has to send the data again and like this, it will take more time to receive the data at the receiver's side.

What does Round Trip Time mean?

Ans: Round-trip time or round-trip delay is defined as the time taken by a signal to send the data plus the time it receives the acknowledgment from the receiver of that signal.

Define Autonomous System (AS).

Ans: It is either a single network or a group of networks that are managed by a single directive. It is defined by a unique number or code and is called as an Autonomous system number (ASN). Sometimes, it is also called as a routing domain.

Communication of networks within an AS is done by using Interior Gateway Protocol (IGP).

What is the size of an IP address?

Ans. 32 bit for IPv4 and 128 bit for IPv6.

Other Interview questions

1. Subnetting
2. Difference between Access port and Trunk port
3. What is the use of STP
4. What port fast do in STP
5. Etherchannel configuration and checking
6. Inter-vlan routing and its use
7. IGP vs EGP
8. Configuration and checking the static routing, ospf, rip, eigrp.
9. OSPF LSA's and states / BGP states and message types.
10. How ping works and ARP works
11. What is DHCP and DORA process
12. What is NAT and types
13. What is the use of ACL and applications
14. What is TTL
15. What are the common port numbers?
16. What are the port numbers for HTTP, HTTPS, Telnet, SSH

*****ALL THE BEST FOR THE INTERVIEW*****